

# Notice of Allowability

Application No.

09/977,527

Examiner

Matthew A. Dickeson

Applicant(s)

ALLISON, DAVID S.

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2191

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed 04/13/2005.
2. ☒ The allowed claim(s) is/are 1,3-5,7-9,11 and 12, renumbered 1-9.
3. ☒ The drawings filed on 13 April 2005 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All   b) ☐ Some\*   c) ☐ None   of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
**TUAN DAM**  
**SUPERVISORY PATENT EXAMINER**

### **DETAILED ACTION**

1. This communication is responsive to amendment filed on 4/13/2002. Amended claims 1-12 were presented for examination, and were considered by the examiner. Claims 1, 5, and 9 are amended by examiner's amendment. Claims 2, 6, and 10 are cancelled by examiner's amendment. Claims 1, 3-5, 7-9, 11, and 12 are allowed.

### ***Response to Amendment***

2. The replacement drawing sheet was received on 4/13/2002 and is accepted by the examiner.

3. The amendments to the specification are acceptable; accordingly, the objections previously made to the specification are withdrawn. The examiner notes that additional deficiencies found in the specification, including new deficiencies introduced by applicants' amendment, have been corrected in the understated examiner's amendment.

4. The amendments to claims 1 and 5-8 and to the specification are acceptable to overcome the rejection previously made under 35 U.S.C. § 101; accordingly, this rejection is withdrawn. The examiner notes that one reference remains in the specification to receiving code in the form of a carrier wave (pg. 21, l. 25 and pg. 22, l. 1); this deficiency is corrected below in the understated examiner's amendment.

***Examiner's Amendment***

5. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

6. Authorization for this examiner's amendment was given in a telephone interview with Robert Lord on 7/21/2005. Per applicants' request, the content of this examiner's amendment is included with the understated reasons for allowance.

7. The application is amended as follows:

- **IN THE SPECIFICATION:**

- a. Replace the paragraph starting on line 17 of page 13 with the following:

- At block 406, the parser encounters the character "x". The parser determines that this must be either the first letter of a string of characters that make up a variable or, since "x" is not a reserved letter, it could be the entire variable. At block 409, the parser encounters the character " ". At this point, it is determined from the syntax that the "x" was the entire variable in the declaration statement. Additionally, the first statement is either of the form D or DW[:,]. –

- b. Replace the paragraph starting on line 10 of page 14 with the following:

- At block 418, the parser encounters the character "y". The parser determines that this must be either the first letter of a string of characters that make up a variable or, since "y" is not a reserved letter, it could be the

entire variable. At block 421, the parser encounters the character " ". At this point, it is determined from the syntax that the "y" was the entire variable in the declaration statement. Additionally, the second statement is either of the form D or DW[:,]. –

- c. Replace the paragraph starting on line 17 of page 16 with the following:

– In one embodiment, a special statement termination token is required to terminate a statement when no natural statement end exists. In another embodiment, a special statement termination token can be used to terminate a statement when a natural end of the statement exists. For example, in one programming language, a statement of the form "variable=variable variable=variable" is permissible in addition to statements of the form "variable=variable". Thus, the statement "x=y z=q" is ambiguous. The input string could be one statement, or the input string could be the statement "x=y" followed by the statement "z=q". Thus, there is no natural statement end if the programmer wishes the input stream to be two statements. In this instance, if the programmer wishes the input stream to be two statements, the programmer is required to use a statement terminator to make the statement end explicit. If the statement terminator is a ";", the correct input stream is "x=y; z=q". –

- d. Replace the paragraph starting on line 22 of page 19 with the following:

– ~~Processor~~ CPU 613 may reside wholly on client computer 601 or wholly on server 626 or ~~processor~~ CPU 613 may have its computational power

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distributed between computer 601 and server 626. Server 626 symbolically is represented in FIG. 6 as one unit, but server 626 can also be distributed between multiple "tiers". In one embodiment, server 626 comprises a middle and back tier where application logic executes in the middle tier and persistent data is obtained in the back tier. In the case where ~~processor~~ CPU 613 resides wholly on server 626, the results of the computations performed by ~~processor~~ CPU 613 are transmitted to computer 601 via Internet 625, Internet Service Provider (ISP) 624, local network 622 and communication interface 620. In this way, computer 601 is able to display the results of the computation to a user in the form of output. –

- e. Replace the paragraph starting on line 8 of page 20 with the following:
- Computer 601 includes a video memory 614, main memory 615 and mass storage 612, all coupled to bi-directional system bus 618 along with keyboard 610, mouse 611 and ~~processor~~ CPU 613. As with ~~processor~~ CPU 613, in various computing environments, main memory 615 and mass storage 612, can reside wholly on server 626 or computer 601, or they may be distributed between the two. Examples of systems where ~~processor~~ CPU 613, main memory 615, and mass storage 612 are distributed between computer 601 and server 626 include the thin-client computing architecture developed by Sun Microsystems, Inc., the Palm Pilot computing device and other personal digital assistants, Internet ready

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cellular phones and other Internet computing devices, and in platform independent computing environments, such as those which utilize the Java technologies also developed by Sun Microsystems, Inc. –

f. Replace the paragraph starting on line 20 of page 20 with the following:

– The mass storage 612 may include both fixed and removable media, such as magnetic, optical or magnetic optical storage systems or any other available mass storage technology. Bus 618 may contain, for example, thirty-two address lines for addressing video memory 614 or main memory 615. The system bus 618 also includes, for example, a 32-bit data bus for transferring data between and among the components, such as ~~processor~~ CPU 613, main memory 615, video memory 614 and mass storage 612. Alternatively, multiplex data/address lines may be used instead of separate data and address lines. –

g. Replace the paragraph starting on line 4 of page 21 with the following:

– In one embodiment of the invention, the ~~processor~~ CPU 613 is a SPARC microprocessor from Sun Microsystems, Inc., a microprocessor manufactured by Motorola, such as the 680X0 processor, a microprocessor manufactured for use in a PDA, or a microprocessor manufactured by Intel, such as the 80X86 or Pentium processor. However, any other suitable microprocessor or microcomputer may be utilized. Main memory 615 is comprised of dynamic random access memory (DRAM), and bytecodes for one embodiment of the invention is

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stored in a portion 627 of main memory 615 during program execution.

Video memory 614 is a dual-ported video random access memory. One port of the video memory 614 is coupled to video amplifier 616. The video amplifier 616 is used to drive the cathode ray tube (CRT) raster monitor 617. Video amplifier 616 is well known in the art and may be implemented by any suitable apparatus. This circuitry converts pixel data stored in video memory 614 to a raster signal suitable for use by monitor 617.

Monitor 617 is a type of monitor suitable for displaying graphic images. –

h. Replace the paragraph starting on line 19 of page 21 with the following:

– Computer 601 can send messages and receive data, including program code, through the network(s), network link 621, and communication interface 620. In the Internet example, remote server computer 626 might transmit a requested code for an application program through Internet 625, ISP 624, local network 622 and communication interface 620. The received code may be executed by ~~processor~~ CPU 613 as it is received, and/or stored in mass storage 612, or other non-volatile storage for later execution. ~~In this manner, computer 600 may obtain application code in the form of a carrier wave.~~ Alternatively, remote server computer 626 may execute applications using ~~processor~~ CPU 613, and utilize mass storage 612, and/or video memory 615. The results of the execution at server 626 are then transmitted through Internet 625, ISP 624, local network 622 and

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communication interface 620. In this example, computer 601 performs only input and output functions. –

- IN THE CLAIMS:

- a. Please cancel claims 2, 6, and 10; and amend claims 1, 5, and 9 as follows:

- 1. (Currently Amended) A method for statement boundary detection comprising:

- obtaining an input stream;

- parsing said input stream to determine a natural end of a first

- statement using a programming language syntax, wherein

- using said programming language syntax comprises

- recognizing said natural end of said first statement with and

- without said first statement having an explicit statement

- terminator[[:]], and wherein said parsing comprises:

- retrieving a next character from said input stream; and

- positioning said natural end of said first statement

- immediately before said next character, if

- appending said next character to said first

- statement is inconsistent with said

- programming language syntax;

- dividing said input stream into a series of statements wherein said



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natural end is used to divide said first statement from a second statement; and

compiling said series of statements to create executable code for execution on a processor of a computer system.

2. Cancelled.

5. (Currently Amended) A statement boundary detector system comprising:

a processor;

main memory; and

instructions stored in main memory for executing on said processor

to:

obtain an input stream;

parse said input stream to determine a natural end of a first

statement using a programming language syntax, wherein

using said programming language syntax comprises

recognizing said natural end of said first statement with and

without said first statement having an explicit statement

terminator[[:]], and wherein parsing said input stream

comprises:

retrieving a next character from said input stream; and

positioning said natural end of said first statement

immediately before said next character, if  
appending said next character to said first  
statement is inconsistent with said  
programming language syntax;

divide said input stream into a series of statements wherein said  
natural end is used to divide said first statement from a  
second statement; and  
compile said series of statements into executable code.

6. Cancelled.

9. (Currently Amended) A computer program product comprising:

a computer usable medium having computer readable code

embodied therein configured to detect a statement

boundary, said computer program product comprising:

computer readable code configured to cause a computer to

obtain an input stream;

computer readable code configured to cause a computer to parse

said input stream to determine a natural end of a first

statement using a programming language syntax, wherein

using said programming language syntax comprises

recognizing said natural end of said first statement with and

without said first statement having an explicit statement

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terminator[[:]], and wherein said computer readable code configured to cause a computer to parse comprises:

computer readable code configured to cause a

computer to retrieve a next character from said

input stream; and

computer readable code configured to cause a

computer to position said natural end of said

first statement immediately before said next

character, if appending said next character to

said first statement is inconsistent with said

programming language syntax; and

computer readable code configured to cause a computer to divide

said input stream into a series of statements wherein said

natural end is used to divide said first statement from a

second statement.

10. Cancelled.

– END –

***Examiner's Statement of Reasons for Allowance***

8. The following is an examiner's statement of reasons for allowance.

The prior art of record teaches a method for parsing an input stream to determine the natural end of a statement using a programming language syntax, wherein the natural end is determined with the statement having an explicit statement terminator, as well as retrieving a next character from the input stream and positioning the natural end immediately before the next character, if adding the next character to the statement would be inconsistent with the programming language syntax, with the statement having an explicit statement terminator, as noted in the previous Office Action. Other teachings from the prior art of record suggest that it would have been obvious to parse and input stream to determine the natural end of a statement using a programming language syntax, wherein the natural end is determined without the statement having an explicit statement terminator, by means of whitespace representation.

However, the prior art of record does not teach and/or suggest a particular method of placing the natural end of the statement by retrieving a next character and positioning the natural end immediately before the next character, if adding the next character to the statement would be inconsistent with the programming language syntax, that for recognizing the natural end of the statement, "without the statement having an explicit statement terminator", and in such a manner as recited in each of independent claims 1, 5, and 9. This logical placement of the end of a statement without the use of an explicit terminator defines applicants' invention over the prior art of record.

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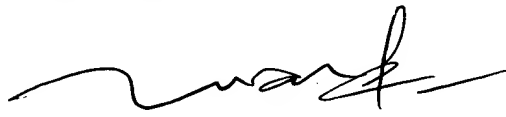
9. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew A. Dickeson whose telephone number is (571) 272-7219. The examiner can normally be reached on Monday thru Friday, 8:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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